

Ethnobotany of the California Indians. Volumes 1 and 2. By B. M. BECK and S. S. STRIKE. 1994. Illustrations by E. D. Roeder. Koeltz Scientific Books, Champaign, Illinois. Vol. 1—165 p.; Vol. 2—210 p. \$80.00.

The new two-volume series on the ethnobotany of the California Indians is a welcomed compendium of aboriginal uses of California plants. Volume 1 is a bibliography and index compiled by Beatrice M. Beck of the Rancho Santa Ana Botanic Garden. It originated as a smaller bibliography for a class sponsored by the Rancho Santa Ana Botanic Garden. Volume 2 is a compendium of the aboriginal uses of California's indigenous plants written by Sandra Strike, also affiliated with the Rancho Santa Ana Botanic Garden.

Beck has gathered an extensive, apparently exhaustive, collection of references from a host of published and "gray" sources. I was pleased to see such an extensive literature on the ethnobotany of California that includes botanical, anthropological, and ethnobotanical entries. Many of the references were familiar to me, but a greater number were not. What I found most useful in Volume One was the name of the plant(s), general use, or aboriginal group discussed in the reference, listed after each citation, when relevant. The plant listing is either a colloquial or Latin name, presumably reflecting the usage in the citation. One must presume that all plants discussed in each reference were listed after the citation.

Somewhat troublesome, however, was a lack of consistency in the listing of plant names and the inaccuracies of the index seen throughout the volume. *Acacia*, for example, is listed as appearing on page 13, but it appears on page 14. *Calochortus* is listed as appearing on pages 13 and 114. It appears on pages 14 and 114. However, the common name for *Calochortus*, "mariposa lily," is cited as appearing only on page 13 (it does not). Although I presume the plant citations reflect the names as used in the reference, the lack of consistency in referencing, cross-referencing, and citations for both Latin and common names seriously diminishes the volume's utility for scientific research.

In addition, many of the Latin names are misspelled (e.g., Martyniaceae as Martyniaceae, *Adenostoma fasciculatum* as *A. fasciculum*). Nomenclature is not completely faithful to the *Jepson Manual*. The index lists *Sequoia gigantea*, not *Sequoiadendron giganteum*, for example. Also peculiar were taxa of which I have no knowledge, and for which I could find no references in our standard botanical texts. For example, I am not familiar with *Scirpus lacustris* (found on page 161 of the index, and cited as occurring in Robert Heiser's 1937 article in *American Antiquities*). I could not find *S. lacustris* in the synonymy of the new *Jepson Manual*; there is no mention of *Scirpus lacustris* in Volume 2. In short, considerable sleuthing is needed to determine to which *Scirpus* Heiser was referring. Although some botanists have access to the necessary botanical references to solve the mystery, I suspect the average user, particularly the non-botanist/anthropologist, will not. This difficulty was not peculiar to *Scirpus*; I went down the "S's" in the index and found the same problem with *Sambucus glauca*. Most of us won't know whether these represent old names or misidentifications. One final irritation with the index is that Latin names are not italicized—a practice that makes finding a scientific plant name much easier as it stands out against all the other entries in an index.

Volume 2, *Aboriginal uses of California's indigenous plants*, is organized alphabetically by genus. Major plant uses are indicated by one or several of five symbols representing food (F), medicine (M), basketry (B), dye (D), and the catchall "other" (O). I found these classifications somewhat traditional, unimaginative, and disappointingly limiting. Many "other" uses are as distinctive as dyes or basketry, and I see no reason, given the detail of the catalogue, why additional use categories such as ritual items, housing materials, etc. could not have been delimited. While I have enjoyed very much perusing this catalogue of uses, and have learned many new things, I would have organized this volume quite differently. For example, uses for each plant are listed individually without the specific citation, so one has no way of knowing

the primary reference. This feature, again, limits the utility of the volumes for original scientific research.

Some oddities in the volumes' production also were apparent. For example, both Volumes 1 and 2 have a bibliography (Volume 1 *is* a bibliography), but references in the much shorter bibliography of Volume 2 do not all appear in Volume 1. Others are not thoroughly cited. For example, Elsie Allen's work on Pomo basketmaking published by Naturegraph Publishers, Inc., is cited as the revised edition (1988) in Volume 2, but as the original, published in 1972, in Volume 1. I do not understand why, if these volumes represent a pair in which one is indispensable without the other, why the bibliographies are not combined. The illustrations by Emily Roeder are reasonable, but do not compare to those produced by the superb artists, such as Dr. L. Vorobik and E. Reid, who contributed to the *Jepson Manual*. To make more of an impact and thus enhance Volume 2, more illustrations would have been essential.

Overall, Beck and Strike have provided us with an indispensable compendium of aboriginal uses of our California plants, but due to the serious and unnecessary shortcomings mentioned in this review, the two volumes are not as immediately useful nor accessible as they could have been. In short, given the somewhat sloppiness of the preparation of the volumes, their limited utility in original research, and their clearly unreasonable cost (\$80.00), it would not be responsible to urge students of California ethnobotany to purchase this pair. Rather, I would suggest that they would be incorporated into libraries and herbaria as a much needed, even essential, accounting of our state's ethnobotanical history.

—PEGGY L. FIEDLER, Department of Biology, San Francisco State University, San Francisco, CA 94132.

Conservation Biology: The Theory and Practice of Nature Conservation, Preservation, and Management. By P. L. FIEDLER and S. K. JAIN (eds.). 1992. Chapman and Hall, New York. xviii + 507 pages. ISBN 0-412-01951-5 (hb), 0-412-01961-2 (pb).

This collection of papers and essays, which addresses important issues in theory and application of conservation biology, arrived a year ahead of the current wave of textbooks on the topic. The book grew out of a graduate seminar series organized by the senior author at San Francisco State University in 1988. It does exactly what such an effort should do, that is, it provides a sampling of current concerns and efforts in the ever-expanding field of conservation biology.

The book is organized into four sections, with a foreword (by John Harper), and an epilogue by the editors. Each section containing several empirical or theoretical chapters and one or two essays. The first section, "The Natural Order", contains several chapters that provide overviews of species richness patterns, causes of natural rarity, and genetic conservation in agroecosystems.

The second section discusses processes and effects of ecological change, and includes chapters on reptilian extinctions, fish biodiversity, invertebrate conservation, and forest fragmentation. As a whole, these papers provide both a historical perspective on community change and indications of causes of biodiversity decline. The compilation of data on threats to invertebrate diversity by Haferink was especially useful and novel. The chapter by Harris and Silva-Lopez includes many definitions and clarifications of the effects of habitat fragmentation on biodiversity.

This section is followed by one dealing with the biology of small populations. It includes chapters dealing with genetics, demography, and social behavior, all important issues that must be integrated in predicting the behavior of small populations. Pearl's chapter on behavioral aspects of the ecology of Asian primates was especially illuminating as regards the complexity involved in conservation of social animals.